exposed to the electrons emitted from said electron source and further comprising a first member within said hermetic container,

wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_\theta}{\delta_0} = \frac{1 - \left\{1 - \dfrac{m_0 \cos\theta}{1 + (m_1)^{-1} \times (m_0 \cos\theta)^{m_2}}\right\} \exp(-m_0 \cos\theta)}{1 - \left\{1 - \dfrac{m_0}{1 + (m_1)^{-1} \times m_0^{\ m_2}}\right\} \exp(-m_0)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less, when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles θ are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1),

provided that the second electron emission coefficient of the surface of said first member has two incident energies which satisfy the second electron emission coefficient δ = 1 under the vertical incident conditions, and that when the larger energy of the above two energies satisfying δ = 1 is referred to as a second cross-point energy, the secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_θ, δ_0, respectively, and

m_1, m_2 have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry being arranged at least in two directions on the surface.

44. (Amended) An electron beam apparatus comprising a hermetic container which includes an electron source having electron emission devices and targets exposed to the electrons emitted from said electron source and further comprising a first member within said hermetic container,

wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_0}{\delta_m} = \frac{1 - \left\{ 1 - \dfrac{m_0 \cos\theta}{1 + (m_1)^{-1} \times (m_0 \cos\theta)^{m_2}} \right\} \exp(-m_0 \cos\theta)}{1 - \left\{ 1 - \dfrac{m_0}{1 + (m_1)^{-1} \times m_0^{\,m_2}} \right\} \exp(-m_0)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less.

when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles θ are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1),

provided that the second electron emission coefficient of the surface of said first member has two incident energies which satisfy the second electron emission coefficient $\delta = 1$ under the vertical incident conditions, and that when the larger energy of the above two energies satisfying $\delta = 1$ is referred to as a second cross-point energy, the secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_θ, δ_0, respectively, and

m_1, m_2, have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry constituting of the amplitudes of at least two kinds of unevenness

45. (Amended) An electron beam apparatus comprising a hermetic container which includes an electron source having electron emission devices and targets exposed to the electrons emitted from said electron source and further comprising a first member within said hermetic container,

wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_\theta}{\delta_0} = \frac{1 - \left\{ 1 - \dfrac{m_0 \cos\theta}{1 + (m_1)^{-1} \times (m_0 \cos\theta)^{m_2}} \right\} \exp(-m_0 \cos\theta)}{1 - \left\{ 1 - \dfrac{m_0}{1 + (m_1)^{-1} \times m_0^{m_2}} \right\} \exp(-m_0)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less,

when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles 0 are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1),

provided that the second electron emission coefficient of the surface of said first member has two incident energies which satisfy the second electron emission coefficient $\delta = 1$ under the vertical incident conditions, and that when the larger energy of the above two energies satisfying $\delta = 1$ is referred to as a second cross-point energy, the

secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_θ, δ_0, respectively, and

m_1, m_2 have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry constituting of the cycles periods of at least two kinds of unevenness.

46. (Amended) A spacer, wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_\theta}{\delta_0} = \frac{1 - \left\{ 1 - \dfrac{m_0 \cos\theta}{1 + (m_1)^{1} \times (m_0 \cos\theta)^{m_2}} \right\} \exp(-m_0 \cos\theta)}{1 - \left\{ 1 - \dfrac{m_0}{1 + (m_1)^{1} \times m_0^{m_2}} \right\} \exp(-m_0)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less,

when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles θ are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1), provided that the second electron emission coefficient of its surface has two incident energies which satisfy the second electron emission coefficient $\delta = 1$ under the vertical incident conditions, and that when the larger energy of said two energies satisfying said condition $\delta = 1$ is referred to as a second cross-point energy, the secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_θ, δ_0, respectively, and

m_1 , m_2 have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry being arranged at least in two directions on the surface.

47. (Amended) A spacer, wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_0}{\delta_0} = \frac{1 - \left\{1 - \dfrac{m_0 \cos\theta}{1 + \left(m_1\right)^{1} \times \left(m_0 \cos\theta\right)^{m_2}}\right\} \exp\left(-m_0 \cos\theta\right)}{1 - \left\{1 - \dfrac{m_0}{1 + \left(m_1\right)^{-1} \times m_0^{\,m_2}}\right\} \exp\left(-m_0\right)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less,

when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles θ are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1), provided that the second electron emission coefficient of its surface has two incident energies which satisfy the second electron emission coefficient δ = 1 under the vertical incident conditions, and that when the larger energy of said two energies satisfying said condition δ = 1 is referred to as a second cross-point energy, the secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_{θ}, δ_0, respectively, and

m_1, m_2 have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry constituting of the amplitudes of at least two kinds of unevenness.

48. (Amended) A spacer, wherein the value of the incident angle multiplication coefficient m_0 of secondary electron emission coefficient, which is a parameter of the following formula:

$$\frac{\delta_0}{\delta_0} = \frac{1 - \left\{ 1 - \dfrac{m_0 \cos\theta}{1 + \left(m_1\right)^{-1} \times \left(m_0 \cos\theta\right)^{m_2}} \right\} \exp\left(-m_0 \cos\theta\right)}{1 - \left\{ 1 - \dfrac{m_0}{1 + \left(m_1\right)^{-1} \times m_0^{\;m_2}} \right\} \exp\left(-m_0\right)} \times \frac{1}{\cos\theta}$$

General Formula (1)

is 10 or less,

when obtaining it from the value of secondary electron emission coefficient measured under the conditions that incident energy is 1 k eV and incident angle is 0 degree as well as the values measured under the conditions that incident energy is 1 k eV and incident angles θ are 20, 40, 60 and 80 degrees by conducting a regression analysis by the least square method in said general formula (1), provided that the second electron

emission coefficient of its surface has two incident energies which satisfy the second electron emission coefficient $\delta = 1$ under the vertical incident conditions, and that when the larger energy of said two energies satisfying said condition $\delta = 1$ is referred to as a second cross-point energy, the secondary electron emission coefficients for the primary electrons whose incident angles are θ and 0 degrees are represented by

δ_θ, δ_0, respectively, and

m_1 , m_2 have the values

$m_1 = 0.68273$

$m_2 = 0.86212$, respectively,

in the incident energy equal to or lower than the second cross-point energy,

wherein said first member is provided with an uneven geometry at least on a part of its surface, said uneven geometry constituting of the cycles periods of at least two kinds of unevenness.

--85. (New) A flat display apparatus, comprising:

first and second substrates supported in opposition to each other,

wherein a spacer having a predetermined height exists between said first and second substrates, a periphery of opposing sections of said first and second substrates are hermetically sealed to form a hermetic flat space between said first and second substrates, and an electron-emitting section is disposed at a side of said first substrate;

a phosphor plane disposed at a side of said second substrate, wherein an electron derived from said electron-emitting section is accelerated and irradiates onto said phosphor plane to cause an excited light emission from said phosphor plane, thereby performing a desired light emission displaying, and wherein a surface of said spacer includes a fine unevenness.

86. (New) An apparatus according to claim 85, wherein said spacer comprises an insulative spacer body and a high resistance film formed on a surface of said spacer body.

87. (New) An apparatus according to claim 85, wherein said spacer has a structure comprising an insulative spacer body and a high resistance film formed on a surface of said spacer body, a fine unevenness is formed on the surface of said spacer body, and, based on the fine unevenness on the surface of said spacer body, a fine unevenness is formed on a surface of said high resistance film.

88. (New) An apparatus according to claim 85, wherein said spacer has a structure comprising an insulative spacer body and a high resistance film formed on a surface of said spacer body, and a fine unevenness is formed on a surface of said high resistance film.

89. (New) An apparatus according to claim 85, wherein said spacer has a surface resistance in a range of 10^7 - $14^{14}\Omega$ /□.

90. (New) An apparatus according to claim 85, wherein said spacer has a structure comprising an insulative spacer body and a high resistance film formed on a surface of said insulative spacer body, and said high resistance film has a surface resistance in a range of 10^7 - $14^{14}\Omega$ /□.

91. (New) An apparatus according to claim 85, wherein a maximum height Rmax of the fine unevenness of the fine uneven surface meets $0.05\mu m \leqq Rmax \leqq 10\mu m$.

92. (New) an apparatus according to claim 85, wherein the fine uneven surface is formed at least a part of said spacer.--

REMARKS

Claims 1-92 are now presented for examination. Claims 43-48 have been amended to even further clarify the claimed subject matter, and Claims 85-92 have been added to provide Applicants with a more complete scope of protection. The changes made to Claims 43-48 have not been made for purposes related to patentability. Claims 1, 26, 27, 43-51, and 85 are in independent form.